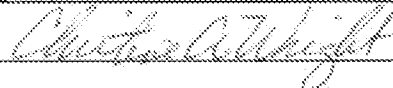Doc Code: AP.PRE.REQ

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
00100.00.0108

I hereby certify that this correspondence is being forwarded via electronic submission to:
Electronic Business Center, Commissioner for Patents, Mail Stop AF

on ___February 28, 2007___

Signature _____

Typed or printed name ___Christine A. Wright___

Application Number	Filed
09/484,549	January 18, 2000

First Named Inventor	
Korbin Van Dyke	

Art Unit	Examiner
2195	Lillian Vo

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
    Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☑ attorney or agent of record. ___34,414___
Registration number

☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

Signature _____

Christopher J. Reckamp
Typed or printed name

312-609-7599
Telephone number

February 28, 2007
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☑ *Total of ___1___ forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Korbin Van Dyke et al.	Examiner:	Lillian Vo
Application No.:	09/484,549	Art Unit:	2195
Filing Date:	January 18, 2000	Docket No.:	0100.9901080
Confirmation No.:	9816	Our File No.:	00100.00.0108

Title: **METHOD AND APPARATUS FOR DYNAMIC ALLOCATION OF PROCESSING RESOURCES**

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REMARKS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

Dear Sir:

Applicants respectfully submit that the Examiner's rejections include clear errors because one or more claim limitations are not met by the cited references and the references do not teach what the Examiner alleges.

Claims 2-12 and 15-16 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,706,514 to Bonola ("Bonola"). Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Bonola. Claims 19-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bonola in view of U.S. Patent No. 6,338,130 to Sinibaldi et al.

Bonola teaches that some processors may operate in different processor modes such as the real mode, the protected mode and the virtual mode. (Col. 1). As explained, a processor operating in one mode cannot process a command in another mode (a mode mismatched command) without relying on a slow emulation or without changing its mode to match that of the command. (Col. 2, ll. 19-28, 56-65, Col. 2, l. 66 – Col. 3, l. 2). Central to Bonola's discussion is

the identification of available processors upon which a command can be executed based on the current mode of the command and the mode of each slave processor in the system. Bonola specifically requires determining "whether a slave CPU ... is available to offload execution of the mode mismatched command ... by polling each slave CPU's multiprocessor interrupt ports for its current mode and the activity stated ... [or, alternatively by] look[ing] up the current status of all slave CPUs ... present in the system ...." (Col. 7, ll. 35-55). Bonola teaches that a processor is "available" for processing a given command when it is configured to be in the same mode as the command itself. (Col. 3, ll. 22-44).

In contrast, independent claims 15 and 16 contain, among other things: identifying available processing resources in the homogeneous multiprocessor environment <u>independent of the tasks</u> and "<u>performing the tasks</u> using the available processing resources to produce resulting data...." (Emphasis added). As such, <u>no mode determination is employed</u> by Applicants' claimed method. Bonola teaches the opposite: the slave CPUs are determined to be available based on <u>the mode of each slave CPU and the mode of the command</u>. This point, however, appears to be ignored in the current Office Action. In the Response to Applicant's Argument section, the Office Action acknowledges that Bonola teaches determining whether slave CPUs are available but fails to consider the remainder of the reference, namely, that at least the current mode of the command is required to determine whether a slave CPU is available. Applicants respectfully submit that it is improper to parse a reference and force a particular interpretation that cuts against the clear and explicit teachings of the reference when read as a whole.

Moreover, the current Office Action states that "it's the office understanding and/or interpretation that a separate process other than the tasks is performing the step of identifying, which is exactly what Bonola discloses." In other words, the Office Action appears to equate the

phrase "independent of the tasks" to suggest that the identification is not performed by the tasks. This interpretation is unreasonable in view of the claim and the written description; it plainly violates MPEP § 2163 which states that "[c]laim construction is an essential part of the examination process. Each claim must be separately analyzed and given its broadest reasonable interpretation in light of and consistent with the written description. The entire claim must be considered..." Applicants respectfully submit that the limitation "identifying available processing resources ... independent of the tasks" clearly requires that the identification, by any suitable entity or thing (e.g., a processor), of available processing resources is not dependent on the tasks. The claim subsequently requires that the tasks be performed using the available processing resources. This is clear not only from the perspective of the claim when read and properly construed in its entirety, but also in view of the written description when read as a whole. As properly construed and explicitly stated, the claim's identification of the available resources independent of the tasks is distinguishable over Bonola's identification of slave CPUs based in part on the current mode of the command.

For the reasons articulated above, claims 15 and 16 are believed to be in proper condition for allowance.

Independent claim 17 is an apparatus claim that requires, among other things, "kernel program code configured to dynamically allocate the processing of the program code among the plurality of processors without regard to a processor mode." In the previous Response filed September 12, 2006, Applicants argued that "Bonola's system always considers the processor mode to determine what processor within a multiprocessor computer system should execute the command or instruction." (p. 16). Applicants further argued that "it is irrelevant that Bonola's system may always execute the command or instruction using a given processor because in each

circumstance, that processor's mode must be properly matched before execution." (*Id.*). Accordingly, "[b]ecause Bonola teaches a system where a knowledge of a processor mode is required in order to determine which processor of a multiprocessor system should execute a command or instruction, Bonola does not appear to teach or suggest Applicants' claimed kernel program code configured to dynamically allocate the processing of the program code among the plurality of processors without regard to a processor mode." (*Id.*).

Again, these distinguishing points were ignored in the current Office Action. For example, the Office Action alleges that Bonola teaches the claimed feature because "Bonola's system can perform the resource allocation among the processors regardless of a processor mode." This characterization, like the Office Action's characterization made above with respect to claims 15 and 16 ignores the entire teaching of the Bonola reference which requires constant consideration of each slave processor's mode and the mode of a given command in order to distribute the mode mismatched command. (Col. 7, ll. 35-55; Col. 3, ll. 22-44). Thus, although it appears that Bonola's system can perform distributed execution of a mode mismatched command in many cases, it appears that: (1) Bonola's system always requires determining the mode of a command and the mode of each slave CPU in the system (*Id.*); and (2) Bonola can only perform the distributed execution of a mode mismatched command when one of the slaves are available (i.e., configured to the same mode as the command) (Col. 3, ll. 32-35, Col. 7, ll. 56-65). Consequently, Bonola's system can perform resource allocation, but always based on a processor mode. Therefore, it would not have been obvious, as suggested by the Office Action, to utilize this claim feature.

Further, the Office Action states that "a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in

order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim." Applicants note that this rejection is improper as the claimed limitation of "kernel program code configured to dynamically allocate the processing of the program code among the plurality of processors without regard to a processor mode" is not a recitation of an intended use but a recitation of structure. For this reason alone the Office Action is improper.
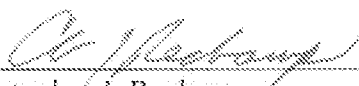
For these reasons, Claim 17 is believed to be allowable over the cited prior art.

The dependent claims of record depend upon one of the allowable base claims 15, 16 or 17 and further add additional novel and nonobvious, patentable subject matter in view of the cited prior art. For at least the reasons articulated above, these claims are also believed to be in proper condition for allowance.

Reconsideration, withdrawal of the rejection of the claims and a Notice of Allowance is respectfully requested.

Respectfully submitted,

Date: _2/28/07_

By: _____
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